

Fundamental Studies of Polymer Mechanical Properties and Adhesion

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In this area, novel experimental and theoretical approaches are available to study polymer mechanical properties and adhesion including nanoindentation, atomic force microscopy, high throughput methods in addition to more range of more traditional techniques to measure the mechanical properties and adhesion. Research projects in the group have focused on the development and application of high-resolution measurement methods to study fundamental problems with broad industrial impact in areas such as the service life prediction of polymeric materials. Recent project include: the development of novel polymeric mechanical testing devices, novel adhesion blister testing devices, development of high throughput screening devices, informatics and database development.